

FILED

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

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THE MAGNAVOX COMPANY and SANDERS ASSOCIATES,

- F COURT

plaintiffs,

CONSOLIDATED CIVIL ACTIONS
NOS. 74 C 1030
74 C 2510

 \mathbf{v} .

BALLY MANUFACTURING CORPORATION ET AL,

Defendants.

ANSWERS ON BEHALF OF DEFENDANTS SEEBURG INDUSTRIES, INC., THE SEEBURG CORPORATION OF DELAWARE AND WILLIAMS ELECTRONICS, INC., TO PLAINTIFFS' FIRST INTERROGATORIES (NOS. 1 THROUGH 50)

Defendants, Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics, Inc. (hereinafter "Seeburg"), hereby answer plaintiffs' first interrogatories Nos. 1 through 50 in accordance with Rule 33 of the Federal Rules of Civil Procedure.

Interrogatory No. 1

1. Referring to paragraph 17(a)(1) of defendants' answer, which states with reference to United States Letters Patent 3,659,284 and 3,659,285 (hereinafter "the patents in suit"):

"The applicants named in each of said Letters Patent, and purporting to be the inventors thereof, were not entitled to obtain said Letters Patent because the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof ... were known and used by others in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by said applicants"

- (a) Describe all acts, facts, occurrences, items of information, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were known and used by others in this country... before the invention thereof by said applicants" and identify all persons having knowledge relating thereto;
- (b) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were ... patented or described in a printed publication in this or a foreign country, before the invention thereof by said applicants" and identify all persons having knowledge relating thereto;
- (c) State with specificity and clarity the basis for the allegation of paragraph 17(a)(1) of the defendants' answer; and
- (d) State with specificity the time, <u>i.e.</u>, date, including month, day, and year, to which defendants refer in the above-recited allegation when they alleged that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were known or used by others in this country or patented or described in a printed publication in this or a foreign country, <u>before</u> the invention thereof by said applicant". [Emphasis added.]

ANSWER: The defenses set forth in paragraph 17(a)(1) of Seeburg's answer were pleaded in accordance with the Federal Rules of Civil Procedure and in reliance upon certain prior art then known. However, it was

and is contemplated that further investigation of
the prior art and discovery proceedings in this case
would develop further information and that plaintiffs
would be advised of the prior art upon which Seeburg
would rely in accordance with the provisions of
35 U.S.C. § 282. Therefore, the answer supplied at
this time is not believed to be complete, and it is
Seeburg's intention to supplement this answer as it
gains additional information.

(a) On information and belief it is Seeburg's position that the devices illustrated and described in the following patents support the allegation in Seeburg's answer that the thing or things alleged to be patented by the patents in suit and all substantial parts thereof were known or used by others in this country. On further information and belief it is Seeburg's position that the patentees in the named patents and others associated with them, whose identities are not known to Seeburg at this time, are persons having knowledge of the facts.

Patent No. 2,455,992, T. T. Goldsmith, Jr., et al, issued December 14, 1948. The entire disclosure of this patent supports or relates to the allegation.

Patent No. 2,572,975, F. B. Berger et al, issued October 30, 1951. The entire disclosure of this

patent supports or relates to the allegation.

Particular attention is directed to column 1

thereof.

Patent No. 2,938,949, M. C. Vosburgh et al, issued May 31, 1960. The entire disclosure of this patent supports or relates to the allegation.

Patent No. 3,007,257, A. J. Mortimer, issued November 7, 1961. The entire disclosure of this patent supports or relates to the allegation.

Patent No. 3,035,354, W. D. G. Greenhalf, issued May 22, 1962. The entire disclosure of this patent supports or relates to the allegation. Particular attention is directed to columns 1 and 2 thereof.

Patent No. 3,046,676, J. Hermann et al, issued July 31, 1962. The entire disclosure of this patent supports or relates to the allegation. Particular attention is directed to column 1, lines 42 to 65 thereof.

Patent No. 3,145,378, W. F. Lyons, Jr., issued

August 18, 1964. The entire disclosure of this

patent supports or relates to the allegation.

Particular attention is directed to line 40, column 5

to line 31 column 6 thereof.

Patent No. 3,479,464, H. H. Wolff, issued November 18, 1969. The entire disclosure of this patent supports or relates to the allegation.

Patent No. 3,483,302, I. L. Ashkenas et al, issued December 6, 1969. The entire disclosure of this patent supports or relates to the allegation.

French Patent No. 1,180,470 published June 4, 1959. The entire disclosure of this patent supports or relates to the allegation.

- (b) See the answer to Interrogatory 1(a) above.
- (c) See the answer to Interrogatory 1(a) above.
- (d) See the answer to Interrogatory 1(a) above.

Interrogatory No. 2

2. Referring to paragraph 17(a)(2) of defendants' answer, which states with reference to the patents in suit:

"The applicants named in each of said Letters Patent, and purporting to be the inventors thereof, were not entitled to obtain said Letters Patent because the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof ... were patented or described in printed publications in this or a foreign country or in public use or on sale in this country more than one year prior to the dates of the applications for said Letters Patent;"

(a) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were patented or described in printed

publications in this or a foreign country ... more than one year prior to the filing date of the applications for said Letters Patent" and identify all persons having knowledge thereof;

- (b) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were ... in public use or on sale in this country more than one year prior to the dates of the applications for said Letters Patent"; and
- (c) State fully and clearly the basis for the above-recited allegation, including a specific showing of not only the identity of the patents or printed publications which are alleged to have disclosed the inventions of said patents more than one year prior to their respective filing dates, but also the manner in which such patents or printed publications disclose such inventions, and further including a detailed and specific statement of the circumstances under which the inventions of said patents are alleged to have been in public use or on sale in this country more than one year prior to the filing dates of the respective applications in the United States.

ANSWER:

- (a) See the answer to Interrogatory 1(a) above.
- (b) See the answer to Interrogatory 1(a) above.
- (c) See the answer to Interrogatory 1(a) above.

Interrogatory No. 3

3. Referring to paragraph 17(a)(3) of defendants answer, which states with reference to the patents in suit:

"The applicants named in each of said Letters Patent, and purporting to be the inventors thereof, were not entitled to obtain said Letters Patent because the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof ... were described in a patent granted on an application "for patent by another filed in the United States before the invention thereof by the applicants for said Letters Patent;"

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- (a) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including specifically the patents and applications to which defendants refer in the above-recited allegation, with appropriate page and line numbers, which in any way support or relate to the above-recited allegation; and
- (b) State fully and with clarity the basis for the allegation of paragraph 17(a)(3) of defendants' answer.

ANSWER:

- (a) See the answer to Interrogatory 1(a) above.
- (b) See the answer to Interrogatory 1(a) above.

Interrogatory No. 4

4. Referring to paragraph 17(a)(4) of defendants' answer, which states with reference to the patents in suit:

"The applicants named in each of said Letters Patent, and purporting to be the inventors thereof, were not entitled to obtain said Letters Patent because the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof ... were not invented by said applicants;"

- (a) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were not invented by said applicants"; and
- (b) State with clarity and specificity the basis for the above-recited allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were not invented by said applicants".

ANSWER:

- (a) See the answer to Interrogatory 1(a) above.
- (b) See the answer to Interrogatory 1(a) above.

Interrogatory No. 5

5. Referring to paragraph 17(a)(5) of defendants answer, which states with reference to the patents in suit:

"The applicants named in each of said Letters Patent, and purporting to be the inventors thereof, were not entitled to obtain said Letters Patent because the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof ... were made in this country before the purported invention by said applicants by others who have not abandoned, suppressed or concealed the same."

- (a) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof "were made in this country before the purported invention by said applicants by others who have not abandoned, suppressed or concealed the same" and identify all persons having knowledge thereof;
- (b) State with specificity and clarity the basis for the allegation of paragraph 17(a)(5) of defendants' answer; and
- (c) State the time, <u>i.e.</u>, date, including month, day, and year, to which the defendants refer in the above allegation that "before the purported invention by said applicants" [emphases added] the thing or things alleged to be patented by said Letters Patent and all substantial parts thereof were made in this country by others who have not abandoned, suppressed or concealed the same.

ANSWER:

(a) See the answer to Interrogatory 1(a) above.

- (b) See the answer to Interrogatory 1(a) above.
- (c) See the answer to Interrogatory 1(a) above.

Interrogatory No. 6

6. Referring to paragraph 17(b) of defendants' answer, which states with reference to the patents in suit:

"The differences between the claimed subject matter of said Letters Patent and the prior art are such that the claimed subject matter as a whole would have been obvious at the time the invention was made to persons having ordinary skill in the art to which said claimed subject matter pertains."

- (a) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that "The differences between the claimed subject matter of said Letters Patent and the prior art are such that the claimed subject matter as a whole would have been obvious at the time the invention was made to persons having ordinary skill in the art to which said claimed subject matter pertains" and identify all persons having knowledge thereof;
- (b) Separately identify all persons and documents, including appropriate page and line numbers, upon which defendants rely to establish the state of the art at the time the inventions were made;
- (c) Separately identify all persons and documents, including appropriate page and line numbers, upon which defendants rely to establish the skill of "persons having ordinary skill in the art to which said claimed subject matter pertains" at the time the invention was made;
- (d) State with specificity the time, <u>i.e.</u>, date, including month, day, and year, to which defendants refer in the allegation that the claimed subject matter as a whole "would have been obvious at the <u>time</u> the invention was made" [emphasis added]; and
- (e) State fully the basis for the allegation of paragraph 17(b) of defendants' answer.

ANSWER:

- (a) See the answer to Interrogatory 1(a) above.
- (b) See the answer to Interrogatory 1(a) above.
- (c) At this time Seeburg intends to rely upon the patents and persons identified in the answer to Interrogatory 1(a) above.
- (d) At this time the dates upon which Seeburg intends to rely are those of the patents identified in the answer to Interrogatory 1(a).
- (e) On information and belief it is Seeburg's position that if there are any differences between the claimed subject matter of said Letters Patent and the prior art those differences are such that the claimed subject matter as a whole would have been obvious to any competent electronics engineer or designer having some experience in the design of circuits and devices for effecting displays on cathode ray tubes.

Interrogatory No. 7

7. Referring to paragraph 17(c) of defendants' answer, which states with reference to the patents in suit:

"The claimed subject matter of said Letters Patent is directed to the assemblage of old elements, wherein the functions of assemblage are merely the sum and total of the old functions of the individual elements."

(a) Describe all acts, facts, occurrences, items of information and the like, and identify all documents, including appropriate page and line numbers, supporting or in any way relating to the allegation that the claimed subject

matter of said Letters Patent "is directed to the assemblage of old elements, wherein the functions of assemblage are merely the sum and total of the old functions of the individual elements" and identify all persons having knowledge thereof;

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- (b) Separately identify all persons and documents including appropriate page and line numbers, upon which defendants rely to establish that the elements of the claimed subject matter of said Letters Patent are old;
- (c) Separately identify all persons and documents, including appropriate page and line numbers, upon which defendants rely to establish that the "functions of assemblage" of the elements of the claimed subject matter of said Letters patent alleged to be old "are merely the sum and total of the old functions of the individual elements"; and
- (d) State fully the basis for the allegations of paragraph 17(c) of defendants' answer.

ANSWER:

- (a) See the answer to Interrogatory 1(a) above.
- (b) See the answer to Interrogatory 1(a) above.
- (c) See the answer to Interrogatory 1(a) above.
- (d) Each of the elements of the claimed subject matter of the Letters Patent is old in the art, and even if any of the claims set forth a novel combination each element in that combination is old and functions as it did in the prior art, and there is no synergistic effect.

Interrogatory No. 8

8. Referring to paragraph 17(d) of defendants' answer, which states with reference to the patents in suit:

"The claims of said Letters Patent do not particularly point out and distinctly claim the subject matter of said Letters Patent as required by 35 U.S.C. § 112." tate fully and completely the basis for the allegation of paragraph 17(d) and identify all documents relating thereto.

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ANSWER: As of this date Seeburg cannot respond fully to this interrogatory because it does not know what claims it is charged to infringe. However, claims 1 and 2 of Patent No. 3,659,285 are each nothing more than a tabulation of elements unconnected and in large part unrelated to each other, and if there is any novel element in either of these claims. Inasmuch as all of the elements are designed simply as means for doing something they are functional at the point of novelty, and therefore are in violation of 35 U.S.C. § 112.

Seeburg is prepared to supplement its answer to this interrogatory upon being advised by the plaintiffs of the claims it is charged to infringe.

Interrogatory No. 9

9. Referring to paragraph 18 of defendants' answer, which states with reference to the patents in suit:

"Defendants, Seeburg Industries, Inc.,
The Seeburg Corporation of Delaware and
Williams Electronics, Inc., allege on
information and belief that the Patent Office
did not cause a proper examination to be made
as to the purported inventions expressed by
the claims of said United States Letters
Patent Nos. 3,659,284 and 3,659,285, and each
of said Letters Patents was inadvertently

"issued, and had such proper examination been made, it would have appeared that the applicants for each of said United States Letters Patent was not entitled thereto, and said United States Letters Patent would not have issued."

- (a) Describe all acts, facts, occurrences, items of information and the like and identify all persons having knowledge thereof and identify all documents, including appropriate page and line numbers, which support or in any way relate to the allegations of paragraph 18 of the defendants' answer or form a basis for belief in the allegations of paragraph 18 of defendants' answer;
- (b) State fully and completely the basis for the allegation that "the Patent Office did not cause a proper examination to be made as to the purported inventions expressed by the claims of said" Letters Patent including all information forming the basis for defendants' belief in said allegation; and
- (c) State fully and completely the basis for the allegation that "each of said Letters Patents was inadvertently issued" including all information forming the basis for defendants' belief in said allegation; and
- (d) State fully and completely the basis for the allegations of paragraph 18 of defendants' answer.

ANSWER:

(a) United States Patent No. 3,728,480 issued on April 17, 1973, and on information and belief owned by the plaintiff Sanders Associates, Inc., and the subject of an exclusive license to the plaintiff Magnavox is considered by Seeburg to be directed to precisely the same alleged inventions which are the subject of the claims of the patents in suit. A presently known instance of improper examination by the Patent Office is that the Examiner responsible

for examining the applications for the patents in suit did not search all of the pertinent prior art. This may be seen by an inspection of the first page of each of those patents. It is believed that the Examiner identified on the face of the patents as David L. Trafton is a person having knowledge of these facts and perhaps others which support or relate the allegations of paragraph 18 of Seeburg's answer.

- (b) See the answer to Interrogatory 9(a) above.
- (c) In United States patent application Serial No. 697,798, filed on January 15, 1968, by R. H. Baer, which patent application was followed by a continuation application Serial No. 126,966, filed on March 22, 1971, and which in turn issues as United States Patent No. 3,728,480. On March 11, 1971, in a letter to the Patent Office, the attorney for Sanders Associates advised the Patent Office of the existence of French Patent No. 1,180,470 and its pertinence to the claims then standing as allowed on application Serial No. 697,798. However, that attorney and, as far as Seeburg knows at this time, no one on behalf of Sanders Associates advised the Examiner having responsibility for applications Serial Nos. 828,154

and 851,865 which later issued as Patent
Nos. 3,659,284 and 3,659,285, respectively, of
the existence of that patent even though it is
clear that its subject matter was just as pertinent
to applications Serial Nos. 828,154 and 851,865 as
it was to application Serial No. 697,798.

(d) See the answers to Interrogatories 9(a), 9(b) and 9(c) above. It is believed that upon further investigation additional facts will be discovered with respect to the deficiencies of the examination of the patents in suit, and the answer to this interrogatory will be supplemented accordingly.

Interrogatory No. 10

10. Referring to paragraph 19 of defendants' answer, which states with reference to the patents in suit:

"Defendants, Seeburg Industries, Inc.,
The Seeburg Corporation of Delaware and
Williams Electronics, Inc., allege on
information and belief that by reason of
the proceedings had and taken in the Patent
Office in the prosecution of the applications for Letters Patent Nos. 3,659,284 and
3,659,285 the patentees thereof and their
legal representatives and assigns, including
plaintiffs, are estopped from asserting that
any device made, sold or used by defendants,
Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics,
Inc., infringe said United States Letters
Patent.

(a) Describe all acts, facts, occurrences, items of information, and identify all persons having knowledge

thereof and identify all documents, including appropriate page and line numbers, which support or in any way relate to the allegations of paragraph 19 of defendants' answer or form a basis for belief in the allegations of paragraph 19 of defendants' answer;

- (b) State with particularity "the proceedings had and taken in the Patent Office in the prosecution of the applications for Letters Patent Nos. 3,659,284 and 3,659,285", including references to the page and line numbers of the file histories of said Letters Patents, which support the allegations of paragraph 19 of defendants' answer or form a basis for defendants' belief in the allegations of paragraph 19 of defendants answer; and
- (c) State fully and completely the basis for the allegations of paragraph 19 of defendants' answer.

ANSWER: Seeburg is prepared to answer this interrogatory when it has been advised by the plaintiffs of what claims it is charged to infringe.

As of this date it is Seeburg's position that during the course of prosecution of the applications for the patents in suit the applicants cancelled and/or amended numerous claims, thereby creating an estoppel which, under the law, is effective to preclude the assertion that the claims allowed are infringed.

Interrogatory No. 11

11. Referring to paragraph 20 of defendants'
answer, which states with reference to the patents in suit:

"Plaintiffs' Letters Patent Nos. 3,659,284 and 3,659,285 are unenforceable against defendants, Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics, Inc., because

plaintiffs have misused said Letters Patents by wrongful exploitation, including inter alia attempting to enforce them against defendants, Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics, Inc., knowing that such patents are not infringed, are invalid, void and improperly issued and by attempting by economic coercion to compel the defendant, The Seeburg Corporation of Delaware, to pay for a license under said United States Letters Patents, and certain other patents allegedly owned by Sanders Associates, Inc., and under which The Magnavox Company allegedly had an exclusive license with a right to sublicense even though defendant, The Seeburg Corporation of Delaware, had informed The Magnavox Company that it had no conceivable interest in this entire group of Letters Patents."

- (a) Describe all acts, facts, occurrences, all items of information and the like, and identify all persons having knowledge thereof, and identify all documents, including page and line numbers, which support or in any way relate to the allegations of paragraph 20 of defendants' answer:
- (b) Describe all acts, facts, occurrences, items of information and the like, and identify all persons having knowledge thereof, and identify all documents, including page and line numbers, relating to the alleged acts of "wrongful exploitation" of said Letters Patent forming a basis for the allegations of paragraph 20 of defendants' answer;
- (c) Describe all acts, facts, occurrences, items of information and the like, and identify all persons having knowledge thereof, and identify all documents, including page and line numbers, supporting the allegation of paragraph 20 of defendants' answer that plaintiffs attempted to enforce said Letters Patent "knowing that such patents are not infringed, are invalid, void and improperly issued";
- (d) Describe all acts, facts, and occurrences, forming any acts of "economic coercion" referred to in the allegations of paragraph 20 of defendants' answer and identify all persons having knowledge thereof and identify all documents, including page and line numbers, relating thereto; and
- (e) State fully and completely the basis for the allegations of paragraph 20 of defendants' answer.

ANSWER: The plaintiffs having been a party to the negotiations with Seeburg are fully aware of all of the acts, facts and occurrences which support the allegation of paragraph 20 of defendants' answer.

Insofar as the known invalidity of the patents in suit is concerned, the failure of the applicants for the patents in suit to bring to the attention of the Examiner the existence of French Patent No. 1,180,470 is a specific fact upon which Seeburg will rely.

Further, it is Seeburg's position that when
Magnavox and Sanders Associates insisted that Seeburg pay the same royalty for a license under the
patents in suit as it was asked to pay for a license
under those patents and a number of other patents
owned by Sanders Associates and the subject of an
exclusive license to Magnavox, it was guilty of a
patent misuse by attempted economic coercion.

Interrogatory No. 12

12. Referring to paragraph 21 of defendants' answer, which states with reference to the patents in suit:

"Defendants, Seeburg Industries, Inc.,
The Seeburg Corporation of Delaware and
Williams Electronics, Inc., allege that United
States Letters Patent Nos. 3,659,284 and
3,659,285 are each invalid and void because
the plaintiffs herein have sought and obtained

at least one United States Patent, namely, patent No. 3,728,480, issued on April 17, 1973, and which on information and belief is assigned to the plaintiff, Sanders Associates, Inc., and by virtue of the agreement alleged in paragraph 10 of the complaint has been exclusively licensed to the plaintiff The Magnavox Company, and which claims the same alleged inventions claimed in the patent in suit whereby the plaintiffs alleged exclusive right to make, use or sell a single invention has been extended or attempted to be extended beyond the 17 years provided for in 35 United States Code, Section 154, and further have imposed upon the public the burden of undertaking a relatively costly investigation in order to ascertain precisely what rights if any the plaintiffs may have with respect to the alleged inventions claimed."

- (a) State fully and completely the basis for the allegation in paragraph 21 of defendants' answer that United States Letters Patent 3,728,480 "claims the same alleged inventions claimed in the patent in suit";
- (b) State fully and completely the basis for the allegation in paragraph 21 of defendants' answer that plaintiffs "have imposed upon the public the burden of undertaking a relatively costly investigation in order to ascertain precisely what rights if any the plaintiffs may have with respect to the alleged inventions claimed"; and
- (c) Describe all acts, facts, occurrences, items of information and the like, and identify all persons having knowledge thereof, and identify all documents, including appropriate page and line numbers, which support or in any way relate to the allegations of paragraph 21 of defendants' answer referred to in paragraph (b) of this interrogatory.

ANSWER:

- (a) The claims of United States Patent No.
- 3,728,480 and the claims of the patents in suit of course speak for themselves, but the comparison

of claim 32 of Patent No. 3,728,480 with claim 25 of Patent No. 3,659,284 and claim 51 of Patent No. 3,659,284 may serve as an example of the basis for the allegation.

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- (b) Patent No. 3,659,284 includes 59 claims.

 Patent No. 3,659,285 includes 12 claims. Patent

 No. 3,728,480 includes 45 claims, thus requiring a

 member of the public with the burden of investigating the scope and validity of at least 116 patent

 claims in order to ascertain his freedom with

 respect to the products involved.
- (c) See the answers to Interrogatories 12(a) and 12(b) above.

Interrogatory No. 13

paragraph 11, state fully and completely the basis for the denial that defendants Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics, Inc. have been for a long time past and still are jointly infringing said Letters Patent 3,659,284 and 3,659,285 by making, using, and selling gaming apparatus embodying the subject matter of the claims of said Letters Patent and will continue to do so unless enjoined.

ANSWER: It is Seeburg's position that it has never made, used or sold gaming apparatus which infringes the subject matter of the claims of Patent Nos. 3,659,284 and 3,659,285 as the law of patent infringement is interpreted by the United States Courts.

Further, inasmuch as these two patents between them include a total of 71 claims, and the plaintiffs have not as yet advised Seeburg of what claims it is charged to infringe, it would be burdensome for Seeburg to undertake to study and provide information with respect to all 71 claims. Seeburg is prepared to complete its response to this interrogatory when the plaintiffs advise it of what claims are charged to be infringed.

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Interrogatory No. 14

14. Referring to defendants' response to Complaint paragraph 12, state fully and completely the basis for the denial that defendants Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics, Inc. have separately and independently or jointly with World Wide Distributors or anyone else infringed or will infringe United States Letters Patent Nos. 3,659,284 and 3,659,285.

ANSWER: See the answer to Interrogatory 13 above.

Interrogatory No. 15

15. Referring to defendants' response to Complaint paragraph 13, state fully and completely the basis for defendants' denial that each of defendants' infringements of said Letters Patent 3,659,284 and 3,659,285 were and are willful and with full knowledge of said Letters Patent.

ANSWER: See the answer to Interrogatory 13 above.

Further, inasmuch as Seeburg has committed no acts

of infringement at all there can be no question of a

willful infringement or an infringement with full

knowledge of the Letters Patent.

Interrogatory No. 16

l6. Referring to defendants' response to Complaint
paragraph 14, which states:

"Plaintiffs have placed the notice prescribed at Title 35, United States Code, Section 287(a) on all gaming apparatus manufactured and sold by them under said Letters Patent 3,659,284 and 3,659,285 and have given written notice to defendants Seeburg Industries, Inc., The Seeburg Corporation of Delaware, and Williams Electronics, Inc. of said infringements of Letters Patent 3,659,284 and 3,659,285."

State fully and specifically the basis for the denial that defendants have been given written notice of the infringement of Letters Patent 3,659,284 and 3,659,285.

ANSWER: On April 2, 1973 Mr. Thomas A. Briody of The Magnavox Company wrote to Magnetic Corporation of America of Waltham, Massachusetts, and in his letter took a position which could be construed by some as constituting a notice of infringement.

On May 22, 1973 Mr. Briody wrote to Mr. Melvin M. Goldenberg, an attorney for Seeburg, a letter which was essentially an offer to grant a license. That letter did not contain any notice of infringement on the part of Seeburg. No other subsequent correspondence or communications between the parties included such a notice.

Interrogatory No. 17

17. Referring to paragraph 15 of defendants' answer, which states with reference to the patents in suit:

"Defendants, Seeburg Industries, Inc., The Seeburg Corporation of Delaware and Williams Electronics, Inc., deny that they or any of them have infringed United States Letters Patent Nos. 3,659,284 and 3,659,285."

State fully and completely the basis for defendants' denial that they or any of them have infringed United States Letters Patent 3,659,284 and 3,659,285.

ANSWER: See the answer to Interrogatory 13 above.

Interrogatory No. 18

18. Referring to paragraph 31 of the counterclaim of defendant-counterclaimant The Seeburg Corporation of Delaware (hereinafter "Seeburg"), which states with reference to the patents in suit:

> "Defendant-counterclaimant contends that it is not now nor has it ever infringed Letters Patent Nos. 3,659,284 and 3,659,285."

State fully and completely the basis for defendant Seeburg's contention that it is not now nor has it ever infringed Letters Patent 3,659,284 and 3,659,285.

ANSWER: See the answer to Interrogatory 13 above.

Interrogatory No. 19

19. Referring to paragraph 38 of defendant Seeburg's counterclaim, which states as follows:

"At a time prior to the filing of the complaint in this action Seeburg Corp. was in the business of manufacturing and selling coin operated games using cathode ray tubes for the display of symbols representing game objects such as balls, hockey pucks, paddles, rackets, hockey sticks and the like, and shipped such games to various customers throughout the United States and in foreign countries." Identify all coin operated games using cathode ray tubes for the display of symbols representing game objects manufactured or sold by defendant Seeburg prior to the filing of the complaint in this action against defendant Seeburg.

ANSWER: Seeburg has manufactured coin operated games using cathode ray tubes and sold them under the names of Paddle Ball, Pro Hockey, Pro Tennis and Olympic Tennis.

On information and belief various subsidiaries of Seeburg may have sold similar games made by other companies. This matter is being investigated and as soon as the information is available it will be supplied.

Interrogatory No. 20

- 20. (a) Identify by type or model number each item, device, apparatus, manufacture, or equipment employing a cathode ray tube or a television receiver as an integral part thereof designed, assembled, produced, manufactured, imported, sold, or offered for sale by defendants;
- device, apparatus, manufacture, or equipment designed or intended to operate with a cathode ray tube or a television receiver or operable with a cathode ray tube or a television receiver assembled, produced, manufactured, designed, imported, sold, or offered for sale by defendants; and
- (c) Describe each item, device, apparatus, manufacture, or equipment (hereinafter collectively referred to as "models") identified in subparagraphs (a) and (b) above including generally the function, operation and major components of each.

ANSWER:

(a) See the answer to Interrogatory 19 above.

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(c) The games made and sold by Seeburg and their function, operation and major components are disclosed in documents such as circuit diagrams, some of which have been made available to the plaintiffs. In any case, it is Seeburg's position that the information sought in this interrogatory can best be obtained by the examination of a witness by deposition and upon the plaintiffs' request Seeburg will attempt to identify an appropriate person for such an examination and make him available at a time and place to be mutually agreed upon by counsel for the parties.

Interrogatory No. 21

21. Identify all documents including, but not limited to, instruction manuals, service sheets, circuit diagrams or schematics, trade catalogs and the like, promotional materials, market surveys, market reports, customer surveys, mechanical drawings, sketches, engineering specifications and reports, design specifications, test specifications, test reports, design memoranda and procurement specifications relating to the structure, operation, performance and marketability of each of the models identified in response to interrogatory 20.

ANSWER: The information sought by this interrogatory is available in the documents themselves, some of which have been or will shortly be produced for inspection and copying by the plaintiffs. As additional documentation is discovered it will be produced in the same manner.

Interrogatory No. 22

22. Have any of the models identified in response to interrogatory 20 been manufactured and/or supplied in whole or in part by persons other than defendants? If so, identify:

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- (a) Each such manufacturer and/or supplier and the models identified in response to interrogatory 20 which each such manufacturer and/or supplier manufactures or supplies; and
- (b) Specify the portion of each such model manufactured or supplied by each manufacturer or supplier.

ANSWER: Yes.

(a) Magnetic Corporation of America, 179 Bear Hill Road, Waltham, Massachusetts 02154; Circuit Service, 5809 West Fullerton Avenue, Chicago, Illinois 60639; and Sperry Electronics Inc., 129 Broadway, Melrose Park, Illinois 60160.

As set forth in the answer to Interrogatory 13 above, additional information about games manufactured in their entirety by companies other than Seeburg will be collected and supplied to the plaintiffs as soon as it is available.

(b) With respect to Paddle Ball, Magnetic Corporation of America manufactured the electronics portion of each game and the cabinet in which it was housed. With respect to Pro Hockey and Pro Tennis, Seeburg assembled circuit boards manufactured by Sperry Electronics Inc. and Circuit Service into a

complete unit. With respect to Olympic Tennis, the game was manufactured by Magnetic Corporation of America.

Interrogatory No. 23

- 23. With respect to each of the manufacturers and/or suppliers identified in response to interrogatory 22, identify:
- (a) All documents, communications, and documents relating to communications between defendants and each such supplier and/or manufacturer in any way relating to Letters Patent 3,659,284 and 3,659,285; and
- (b) All documents, communications, and documents relating to communications received or written by defendants, including, but not limited to, communications between defendants and each such manufacturer and/or supplier, relating to the construction, manufacture, sale and/or distribution of models identified in connection with the answer to interrogatory 20 and the avoidance of the subject matter claimed in either of said patents.

ANSWER:

(a) Letter April 4, 1973, Edward J. Lucas, President, Magnetic Corporation of America, to Samuel Stern, President, Williams Electronics, Inc. Letter April 30, 1973, Edward J. Lucas to Frank Murphy of Williams Electronics, Inc. Purchase agreement, April 1973, between Williams Electronics, Inc. and Magnetic Corporation of America.

There may be other documents relating to this subject matter, and they will be produced for inspection and copying by the plaintiffs if and when they are found to exist.

(b) There are no such documents

Interrogatory No. 24

24. Identify all documents, communications, and documents relating to communications between defendants and any manufacturer, wholesaler, distributor, dealer or importer in connection with or relating to disputes, dispute settlements, agreements, disagreements, contract negotiation, licensing or any other controversy or controversy settlement in respect to infringement of, or encroachment upon, any rights in any way related to the models identified in connection with the answer to interrogatory 20.

ANSWER: See the answer to Interrogatory 23. Inasmuch as the person furnishing the answers to these interrogatories has only recently become aware of the sale by Seeburg distributing companies, and it may be that there are additional documents in the custody of those companies, a further search is in progress and these documents will be identified, if they exist, as soon as they are available.

Interrogatory No. 25

- 25. (a) Identify any patents or patent applications in which defendants have any rights relating to any subject matter embodied in any of the models identified in response to interrogatory 20, both in the United States and elsewhere; and
- (b) Identify any patent application filed by or on behalf of defendants, any patent applications proposed or prepared for filing by or on behalf of defendants and not filed, and any subject matters which were considered for possible patenting by or on behalf of defendants, both in the United States and elsewhere, and relating to any subject matter embodied in any of the models identified in response to interrogatory 20.

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- (a) None.
- (b) None.

Interrogatory No. 26

26. Identify any interferences, opposition proceedings, or public use proceedings which involved any of the patents or patent applications identified in response to interrogatory 25.

ANSWER: Not required to be answered.

Interrogatory No. 27

27. Identify all patents or publications cited by any examiner or other official, whether applied or not, in any proceeding related to the patents or patent applications identified in response to interrogatory 25.

ANSWER: Not required to be answered.

Interrogatory No. 28

28. Identify any judicial proceedings in state or federal courts involving or relating to the subject matter, including circuits, circuit boards, apparatus and devices, embodied in any of the models identified in response to interrogatory 20, including, but not limited to, judicial proceedings in which the claims raised involved patent infringement, copyright infringement or unfair competition.

ANSWER: Apart from this action there are none.

Interrogatory No. 29

29. Identify all persons who designed, assisted in the design, procured or assisted in the procurement of all or any portion of the models identified in response to interrogatory 20, and specify the function of each such person in connection with each such model.

ANSWER: Paddle Ball - Robert Jonesi's last known address is Williams Electronics, Inc., 3401 North California Avenue, Chicago, Illinois 60618.

Responsible for design of Paddle Ball in conjunction with personnel of Magnetic Corporation of America.

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Pro Hockey - C. Dabrowski's business address is

The Seeburg Corporation of Delaware, 1500 North

Dayton Street, Chicago, Illinois 60622. Responsible

for design of Pro Hockey in conjunction with personnel

of Circuit Service and Sperry Electronics Inc.

Pro Tennis - Ray Macie, Williams Electronics,
Inc., 3401 North California Avenue, Chicago, Illinois
60618. Responsible for design of Pro Tennis in conjunction with Circuit Service and Sperry Electronics
Inc.

Olympic Tennis - Personnel employed by Magnetic Corporation of America.

Interrogatory No. 30

- 30. (a) Identify the date(s) when defendants first gained knowledge of patent 3,659,284 or of the application which resulted in said patent;
- (b) Identify the date(s) when defendants first gained knowledge of patent 3,659,285 or of the application which resulted in said patent;
- (c) Identify the date(s) when defendants first gained knowledge that plaintiffs individually or collectively were asserting exclusive or patent rights in

the industry or trade related to any of the models identified in response to interrogatory 20;

- (d) Identify the date(s) when defendants were first advised by or received notice from plaintiffs or representatives of plaintiffs that plaintiffs individually or collectively were asserting exclusive or patent rights relative to gaming apparatus employing or adapted to operate with a cathode ray tube or a television receiver;
- (e) State in detail the manner in which defendants gained or received the knowledge, advice or notice specified in response to paragraphs (a) through (d) hereof and identify the person or persons, firm or firms, corporation or corporations and the like from whom such knowledge, advice or notice was gained or received; and
- (f) Identify all documents relating to the knowledge, advice and notice referred to in subparagraphs (a) through (e) hereof.

ANSWER:

- (a) Within one or two days after April 4, 1973.
- (b) Within one or two days after April 4, 1973.
- (c) As of this date plaintiffs have not advised the defendants precisely what claim or claims of the patents in suit are alleged to be infringed, but certainly early in April of 1973 Seeburg became aware that plaintiffs were making some claim of a patent right with respect to Paddle Ball.
 - (d) Within one or two days after April 4, 1973.
- (e) Within one or two days after April 4, 1973 a letter was received by Seeburg from Magnetic Corporation of America enclosing a letter from Magnavox to that company.

(f) See the answer to Interrogatory 30(e).

Interrogatory No. 31

- 31. Identify each person whom defendants expect to call as an expert witness in this civil action and/or who has been retained or specially employed by defendants in anticipation of this civil action and/or in preparation for trial for this civil action.
- (a) As to each expert witness, state the subject on which he is expected to testify;
- (b) As to each expert witness, state the substance of the facts and opinions as to which the expert is expected to testify; and
- (c) As to each expert witness, summarize the grounds for each opinion set forth in answer to subparagraph(b) hereof.

ANSWER: As of this date Seeburg has not selected an expert witness. If and when Seeburg does select such a witness plaintiffs will be advised and the information sought in this interrogatory furnished.

Interrogatory No. 32

- 32. Have any novelty, patentability, state of the art, validity and/or infringement searches and/or investigations been conducted by the defendants relating to the subject matter described or claimed in United States Letters Patent 3,659,284 or United States Letters Patent 3,659,285? If so:
- (a) State the date or dates of each such search and/or investigation;
- (b) Identify all prior art located and/or noted as a result of each such search and/or investigation; and

(c) Identify all documents relating to each such search and/or investigation, including, but not limited to, summaries, notes, memoranda, opinions and the like prepared by employees or attorneys of defendants.

ANSWER: No.

- (a) Not required to be answered.
- (b) Not required to be answered.
- (c) Not required to be answered.

Interrogatory No. 33

33. For each model identified in response to interrogatory 20, state, by year, the total number of units made, sold or offered for sale, the price charged, and the profit realized.

ANSWER: Objected to.

Interrogatory No. 34

- 34. With respect to the decision of defendants not to enter into a license agreement regarding United States Letters Patent 3,659,284 and 3,659,285:
- (a) Identify all persons who participated in such decision;
- (b) Identify all documents relating to such decision;
 - (c) State the date when such decision was made;
- (d) State in detail the basis for such decision and identify all materials, documents and other considerations which were utilized or taken into account in reaching such decision; and
- (e) Identify all materials and/or documents relating to any license negotiations between plaintiffs and the aforesaid defendants.

(a) Seeburg has not made a decision not to enter into a license agreement regarding Patents Nos.

3,659,284 and 3,659,285.

(b) Seeburg has not made a decision not to enter into a license agreement regarding Patents

Nos. 3,659,284 and 3,659,285.

(c) Seeburg has not made a decision not to enter into a license agreement regarding Patents

Nos. 3,659,284 and 3,659,285.

- (d) Seeburg has not made a decision not to enter into a license agreement regarding Patents Nos. 3,659,284 and 3,659,285.
- (e) Seeburg has not made a decision not to enter into a license agreement regarding Patents Nos. 3,659,284 and 3,659,285.

Interrogatory No. 35

35. Have defendants, any of their manufacturers, suppliers, distributors, customers and/or any user of the models identified in response to interrogatory 20 been notified other than by plaintiffs herein with respect to the existence of and/or the possibility of and/or the infringement of any United States Letters Patent relating to apparatus employing a cathode ray tube or a television receiver? If so, identify:

- (a) Each person notified;
- (b) Each such Letters Patent;

(c) Each party who gave each such notice;

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- (d) All documents relating to each such notice and/or to the disposition thereof; and
- (e) Any civil action involving an allegation that said apparatus was covered by and/or infringed the claims of a United States Letters Patent other than United States Patents 3,659,284 and 3,659,285.

ANSWER:

- (a) Gary M. Stern, 3401 North California Avenue, Chicago, Illinois.
- (b) Patent No. 3,793,483 issued on February 19, 1974 to Nolan Bushnell.
- (c) The patentee advised Mr. Stern of the existence of the patent.
- (d) The patent itself and a note from Mr. Stern to Mr. Melvin M. Goldenberg.
 - (e) None.

Interrogatory No. 36

- 36. Have defendants, any of their manufacturers, suppliers, distributors, customers and/or any user of the models identified in response to interrogatory 20 been offered by any party other than plaintiffs a license under any United States Patents relating to apparatus employing a cathode ray tube or a television receiver as an integral part thereof? If so, identify:
 - (a) Each person notified;
 - (b) Each such Letters Patent;
 - (c) Each party who offered each such license;
 - (d) The date of each such license offer;

- (e) The status and/or disposition of each such license offer; and
- (f) All documents relating to each such license offer and/or the disposition thereof.

ANSWER: Yes.

- (a) Gary M. Stern, Williams Electronics, Inc., 3401 North California Avenue, Chicago, Illinois 60618.
 - (b) United States Letters Patent No. 3,793,483.
- (c) Nolan K. Bushnell, 3572 Gibson, Santa Clara, California 95051.
 - (d) On or about March 21, 1974.
- (e) The offer was never pursued and has been inactive for a number of months.
- (f) Letter Gary M. Stern to Melvin Goldenberg dated March 21, 1974. Interoffice communication Gary M. Stern to R. Jonesi, D. (sic) Dabrowski and R. Macie March 22, 1974.

Interrogatory No. 37

37. Have defendants had any communications, whether oral or written, with parties other than plaintiffs regarding (i) the subject matter of United States Patents 3,659,284 and 3,659,285, (ii) the validity of United States Patents 3,659,284 and 3,659,285, (iii) plaintiff The Magnavox Company's charge to defendants or others of infringement of United States Patents 3,659,284 and 3,659,285, (iv) plaintiff The Maganvox Patents 3,659,284 and 3,659,285, (iv) plaintiff The Maganvox Company's offer to defendants and others of a license under United States Patents 3,659,284 and 3,659,285, and/or (v) the construction of gaming apparatus employing a cathode ray tube or a television receiver and the avoidance of the claimed subject matter of United States Patents 3,659,284 and 3,659,285? If so, identify:

- (a) Each such other party; and
- (b) All documents, communications and documents relating to communications with each such other party.

 ANSWER: Yes.

(a) and (b) There have been a relatively small number of oral communications with principals of the Bally-Midway defendants in the consolidated cases.

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There have been a few oral communications with Sega S.A., a Spanish company in which Seeburg has a part interest.

Alca Electronics Ltd., Goddard Street, Oldham,
Lancashire, England. Letter Gary M. Stern to Martin
Bromley June 18, 1974. Letter Martin Bromley to Gary
Stern August 28, 1974. Letter Gary Stern to Martin
Bromley September 4, 1974. Letter Melvin M. Goldenberg
to M. J. Bromley September 10, 1974. Letter M. J.
Bromley to M. M. Goldenberg September 16, 1974. Letter
M. J. Bromley to M. M. Goldenberg October 15, 1974.

Interrogatory No. 38

38. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"In combination with a standard television receiver, apparatus for generating signals representing a symbol to be displayed on the screen of said television receiver, comprising:

"a control unit including means for generating horizontal and vertical signals representing the symbol to be displayed, means for synchronizing a television raster scan, and means for manipulating the position of the symbol on the screen, said manipulating means including means for generating first and second control signals coupled to said means for generating horizontal and vertical signals, said control signal generating means including means for causing the displayed symbol to travel back and forth between two predetermined positions offscreen; and

means for electrically coupling said control unit to said television receiver."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state with specificity which elements are not included in the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 use standard television receivers and none have the manipulating means set out.

Interrogatory No. 39

39. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"In combination with a standard television receiver, apparatus for generating symbols upon the screen of the receiver to be manipulated by at least one participant, comprising:

means for generating a hitting symbol, and

means for generating a hit symbol including means for ascertaining coincidence between said hitting symbols and said hit symbol and means for imparting a distinct motion to said hit symbol upon coincidence."

For those models which do not include the entire combination above recited, state with specificity what elements of the combination are absent from the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 use standard television receivers and none have means for imparting a distinct motion to a hit symbol upon coincidence with a hitting symbol.

Interrogatory No. 40

40. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for playing a baseball type game on the screen of a cathode ray tube comprising:

means for displaying a hit spot;

means for displaying a hitting spot;

means for adjusting the vertical position of said hitting spot;

means for serving said hit spot; and

means for varying the vertical position of said hit spot; and

means for denoting coincidence between said hit and said hitting spot whereby said hit spot will reverse directions."

For those models identified in response to interrogatory 20 which do not include the entire combination above recited,

state with specificity what elements of the combination are absent from the respective models.

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ANSWER: None of the models identified in the answer to Interrogatory 20 constitute apparatus for playing baseball type game.

Interrogatory No. 41

41. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for playing a hockey type game upon the screen of a cathode ray tube, comprising:

means for displaying a first hitting spot;
means for displaying a second hitting spot;
means for displaying a hit spot;

means for controlling the position of said first and second hitting spots;

means for controlling the position of said hit spot including means for ascertaining coincidence between either of said hitting spots and said hit spot and means for imparting a distinct motion to said hit spot upon coincidence."

For those models identified in response to interrogatory 20 which do not include the entire combination above recited, state with specificity what elements of the combination are absent from the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 have means for controlling the position of a hit spot and none impart a distinct motion to a hit spot upon coincidence with a hitting spot.

Interrogatory No. 42

42. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for generating symbols upon the screen of a television receiver to be manipulated by at least one participant, comprising:

means for generating a hitting symbol; and

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means for generating a hit symbol including means for ascertaining coincidence between said hitting symbol and said hit symbol and means for imparting a distinct motion to said hit symbol upon coincidence."

For those models identified in response to interrogatory 20 which do not include the entire combination above recited, state with specificity what elements of the combination are absent from the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 have means for imparting a distinct motion to a hit spot upon coincidence with a hitting spot.

Interrogatory No. 43

43. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"In combination with a standard television receiver, apparatus for generating signals representing a first and second hitting symbol and a hit symbol to be displayed on the screen of said television receiver, comprising:

means for generating sync signals;

"means for generating a first sawtooth wave;

means for generating a second sawtooth wave;

- a first hitting symbol generator;
- a second hitting symbol generator;
- a hit symbol generator;
- means for applying said first and second sawtooth waves to said symbol generators;
- means for generating first and second control signals for said first hitting symbol generator;
- means for coupling said first and second control signals to said first hitting symbol generator;
- means for generating third and fourth
 control signals for said second hitting
 symbol generator;
- means for coupling said third and fourth control signals to said second hitting symbol generator;
- means for generating fifth and sixth control signals for said hit symbol generator;
- means for coupling said fifth and sixth
 control signals to said hit symbol
 generator;
- means for coupling said first, second, third, and fourth control signals to said means for generating fifth and sixth control signals; and
- means for coupling the outputs of said symbol generators and said sync signals to the television receiver."

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For those models identified in response to interrogatory 20 which do not include the entire combination above recited, state with specificity what elements of the combination are absent from the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 are in combination with a standard television receiver, none generate sawtooth waves, none couple two control signals to hitting symbol generators and none have outputs coupled to television receivers.

Interrogatory No. 44

44. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for generating symbols upon the screen of a cathode ray tube, comprising:

a cathode ray tube;

means for generating horizontal and vertical
 sync signals;

means for generating first and second sawtooth
 waves;

means for generating a video signal proportional to predetermined slices of said sawtooth waves including a first slicer having first and second diodes connected back-to-back with one junction thereof coupled to said vertical sawtooth generating means, a capacitor coupled from the other junction to ground and means for receiving a first control signal at said other junction, and first means for differentiating the output from said first slicer, and a second slicer

"having third and fourth diodes connected back-to-back with one junction thereof coupled to said horizontal sawtooth generating means, a capacitor coupled from the other junction to ground and means for receiving a second control signal at said other junction, and second means for differentiating the output from said second slicer, and a coincidence gate coupled to said first and second differentials:

- a horizontal deflection circuit coupled to said cathode ray tube;
- a vertical deflection coupled to said cathode ray tube circuit;
- means for coupling said video signal to the intensity input of said cathode ray tube;
- means for coupling said horizontal sync signals to said horizontal deflection circuits; and
- means for coupling said vertical sync
 signals to said vertical deflection
 circuit."

For those models identified in response to interrogatory 20 which do not include the entire combination recited above, state with specificity which elements are absent from the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 generate sawtooth waves or have the third listed means.

Interrogatory No. 45

45. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"In combination with a standard television receiver, apparatus for generating signals representing a first and second 'hitting' symbol and a 'hit' symbol to be displayed on the screen of said television receiver, comprising:

- means for generating horizontal and vertical sync signals;
- means for generating a vertical train of square pulses;

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- means for generating a horizontal train of square pulses;
- a first 'hitting' symbol generator;
- a second 'hitting' symbol generator;
- a 'hit' symbol generator;
- means for applying said vertical and horizontal trains of square pulses to said symbol generators;
- means for generating first and second
 control signals for said first
 'hitting' symbol generator;
- means for coupling said first and second control signals to said first 'hitting' symbol generator;
- means for generating third and fourth control signals for said second 'hitting' symbol generator;
- means for coupling said third and fourth control signals to said second 'hitting' symbol generator;
- means for generating fifth and sixth control signals for said 'hit' symbol generator;
- means for coupling said fifth and sixth
 control signal to said 'hitting' symbol
 generator;

"means for coupling said first, second, third and fourth control signals to said means for generating fifth and sixth control signals; and

means for coupling the outputs of said symbol generators and said sync signals to the television receiver."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state which elements are absent from the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 use standard television receivers, none couple two control signals to hitting symbol generators and none couple outputs to a television receiver.

Interrogatory No. 46

46. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"In combination with a standard television receiver, apparatus for generating symbols upon the screen of the receiver to be manipulated by at least one participant, comprising:

means for generating a 'hitting' symbol;
means for generating a movable 'hit' symbol;
means for generating a fixed 'hit' symbol;

means for denoting coincidence between
 said movable 'hit' symbol and said
 'hit' fixed symbol;

"means for causing said movable 'hit' symbol to move away from said fixed 'hit' symbol when coincident therewith; and

means for displaying said symbols."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state with specificity which elements are not included in the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 use standard television receivers and none have the third listed means.

Interrogatory No. 47

47. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for generating signals representing a first and second 'hitting' symbol and a 'hit' symbol to be displayed on the screen of a television receiver, comprising:

- means for generating horizontal and vertical sync signals;
- means for generating a vertical train of square pulses;
- means for generating a horizontal train of square pulses;
- a first 'hitting' symbol generator;
- a second 'hitting' symbol generator;
- a 'hit' symbol generator;
- means for applying said vertical and horizontal trains of square pulses to said symbol generators;

- means for coupling said first and second
 control signals to said first 'hitting'
 symbol generator;
- means for generating third and fourth
 control signals for said second 'hitting'
 symbol generator;
- means for coupling said third and fourth
 control signals to said second 'hitting'
 symbol generator;
- means for generating fifth and sixth control
 signals for said 'hit' symbol generator;
- means for coupling said fifth and sixth control signals to said 'hit' symbol generator;
- means for coupling said first, second, third and fourth control signals to said means for generating fifth and sixth control signals; and
- means for coupling the outputs of said symbol generators and said sync signals to a television receiver."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state with specificity which elements are not included in the respective models.

ANSWER: None of the models identified in the answer to Interrogatory 20 use television receivers, none apply to horizontal trains of pulses to all symbol generators, none couple two control signals to hitting symbol generators and none couple outputs to television receivers.

Interrogatory No. 48

48. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for generating symbols on the screen of a television receiver to be manipulated by at least one participant, comprising:

means for generating a 'hitting' symbol;
means for generating a movable 'hit' symbol;
means for generating a fixed 'hit' symbol;
means for denoting coincidence between said

means for denoting coincidence between said movable 'hit' symbol and said first 'hit' symbol;

means for causing said movable 'hit' symbol to move away from said fixed 'hit' symbol when coincident therewith; and

means for coupling said generated symbols to a television receiver."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state with specificity which elements are not included in the respective models.

ANSWER: None of the models use television receivers, none have the fifth means listed and none couple generated symbols to television receivers.

Interrogatory No. 49

49. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for playing a target shooting game on the screen of a cathode ray tube, comprising:

means for generating a target on the screen of said cathode ray tube;

means responsive to said target displayed on said cathode ray tube for 'shooting' at said target;

means for causing said target to move in a predetermined direction;

means for causing said target to reverse direction upon hitting of said target by said means responsive.

means for causing said target to go off screen when not hit by said means responsive during a traverse across the screen."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state with specificity which elements are not included in the respective models.

ANSWER: None are target shooting games.

Interrogatory No. 50

50. State which of the models identified in response to interrogatory 20 include the following combination of elements:

"Apparatus for playing a target shooting game on the screen of a cathode ray tube, comprising:

means for generating a target on the screen of said cathode ray tube;

means responsive to said target displayed on said cathode ray tube for 'shooting' at said target from a distance, including a biased photosensitive element; and "means for causing said target to disappear when a hit is made."

For those models identified in response to interrogatory 20 which do not include the entire combination of elements recited above, state with specificity which elements are not included in the respective models.

ANSWER: None are target shooting games.

STATE OF ILLINOIS COUNTY OF COOK

I, Melvin M. Goldenberg, being duly sworn, do hereby state that the foregoing answers to plaintiffs' first interrogatories Nos. 1 through 50 are provided by me on the basis of my personal knowledge and my information and belief based on information communicated to me by employees of seeburg.

Mulvin M. Goldenberg

Subscribed and sworn to before me this 3rd day of January, 1975. Dolores Co Sharko

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